

Computer Network Lab



LAB WORK # 04

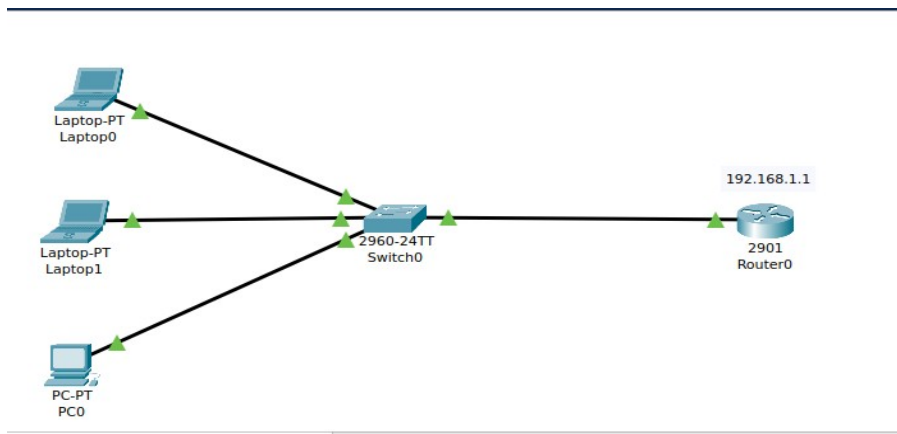
Submitted By
QASIM ALI (20P-0070)
Submitted to : Hurmat Hidayat
(INSTRUCTOR CS)

DEPARTMENT OF COMPUTER SCIENCE
FAST NATIONAL UNIVERSITY OF COMPUTER
AND EMERGING SCIENCES, PESHAWAR

Session 2020-2024

Configuring DHCP server on a Router

Build the network topology:



On the router, configure interface fa0/0 to act as the default gateway for our LAN.

Equivalent IOS Commands

```
Router(config)#exit
Router(config)#
Router(config)#interface GigabitEthernet0/0
Router(config-if)#
Router(config-if)#ex
Router(config)#ip dhcp pool p1
Router(dhcp-config)#network 192.168.1.0 255.255.255.0
Router(dhcp-config)#default-router 192.168.1.1
Router(dhcp-config)#dns-server 192.168.1.2
Router(dhcp-config)#ex
Router(config)#ip dhcp excluded-address 192.168.1.1 192.168.1.10
Router(config)#
Router(config)#
```

IP Configuration

☒ DHCP

☐ Static

IPv4 Address

192.168.1.11

Subnet Mask

255.255.255.0

Default Gateway

192.168.1.1

DNS Server

192.168.1.2

IP Configuration

☒ DHCP
 ☐ Static

IPv4 Address: 192.168.1.12

Subnet Mask: 255.255.255.0

Default Gateway: 192.168.1.1

DNS Server: 192.168.1.2

IP Configuration

☒ DHCP
 ☐ Static

IPv4 Address: 192.168.1.13

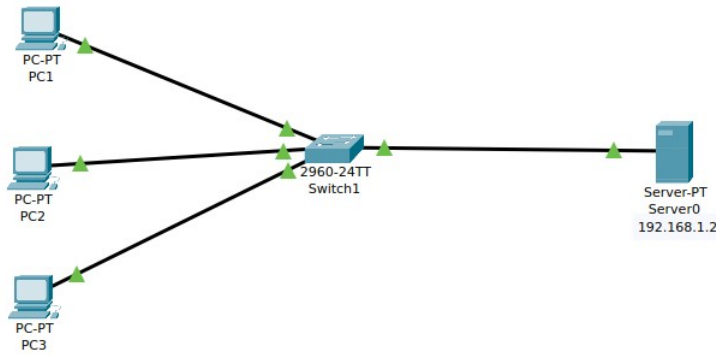
Subnet Mask: 255.255.255.0

Default Gateway: 192.168.1.1

DNS Server: 192.168.1.2

Task 2:

Configuring DHCP server on a Generic server



Interface: FastEthernet0 Service: ☒ On ☐ Off

Pool Name: serverPool

Default Gateway: 192.168.1.1

DNS Server: 192.168.1.3

Start IP Address: 192.168.1.20

Subnet Mask: 255.255.255.0

Maximum Number of Users: 236

TFTP Server: 0.0.0.0

WLC Address: 0.0.0.0

Pool Name	Default Gateway	DNS Server	Start IP Address	Subnet Mask	Max User	TFTP Server	WLC Address
serverPool	192.168.1.1	192.168.1.3	192.168.1.20	255.255.255.0	236	0.0.0.0	0.0.0.0

<input checked="" type="radio"/> DHCP	<input type="radio"/> Static
IPv4 Address	192.168.1.20
Subnet Mask	255.255.255.0
Default Gateway	192.168.1.1
DNS Server	192.168.1.3

<input checked="" type="radio"/> DHCP	<input type="radio"/> Static
IPv4 Address	192.168.1.21
Subnet Mask	255.255.255.0
Default Gateway	192.168.1.1
DNS Server	192.168.1.3

<input checked="" type="radio"/> DHCP	<input type="radio"/> Static	DHCP request successful.
IPv4 Address	192.168.1.22	
Subnet Mask	255.255.255.0	
Default Gateway	192.168.1.1	
DNS Server	192.168.1.3	

You can test the configuration by pinging PC2 , PC1 and PC3. Ping should succeed.

Task 4:

